

DOCKET NO: 264821US0PCT

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF :
STEFAN LAUFER, ET AL. : EXAMINER: MORRIS, P. L.
SERIAL NO: 10/524,486 :
FILED: NOVEMBER 17, 2005 : GROUP ART UNIT: 1625
RCE FILED: JULY 3, 2008
FOR: 2-THIO-SUBSTITUTED :
IMIDAZOLE DERIVATIVES AND THEIR
USE IN PHARMACEUTICS

PETITION UNDER 37 C.F.R. § 1.181

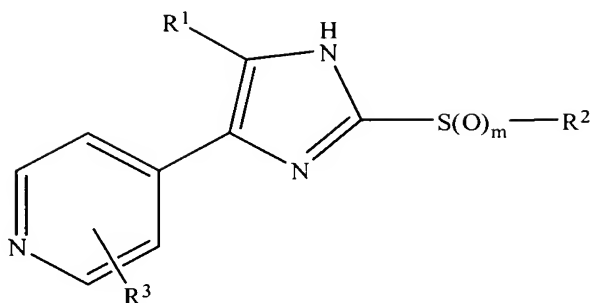
COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

Applicants hereby petition under 37 C.F.R. § 1.181 to invoke supervisory authority and order the Examiner expand her search and examination beyond the species, now found to be drawn to allowable subject matter, elected by the election of species.

STATEMENT OF FACTS

In an Office Action dated March 5, 2007, the Examiner required restriction between Group I, drawn to compounds, and Group II, drawn to a method of treating disorders using the compounds, and that if Group I were elected, additionally required an election of species based on the following 2-thio-substituted imidazole derivative compound of formula I:



wherein m was (and is) 0, 1 or 2, and R^1 , R^2 , and R^3 were as defined in then Claim 1. Heterocyclic groups were not included among the possible substituents for R^1 and R^2 ; however, heterocyclic groups were (and still are) included among the possible substituents for R^3 in some of the now-pending claims.

The Examiner required that Applicants elect a single compound.

Applicants elected the compound of Example 54 which contains, *inter alia*, a heterocyclic group, i.e., a tetrahydropyran group, as part of the R^3 group.

The pending claims now are Claims 16-38. Independent Claim 25 and dependent Claims 26, 29-35 and 37 thereon are drawn to compounds (or methods of use thereof) wherein R^3 is inclusive of heterocyclic groups. Particularly, in Claim 25, R^3 is selected from the group consisting of

- a) NR^4R^{10} ,
- b) NR^7COR^{10} ,
- c) OR^{10} , and
- d) NH_2 ;

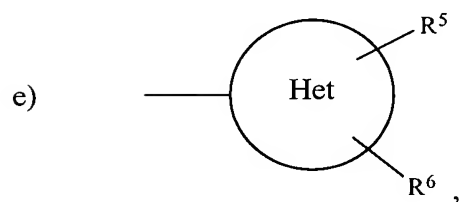
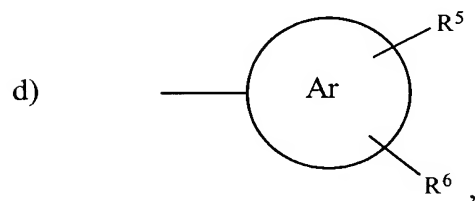
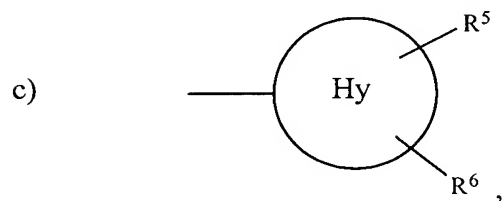
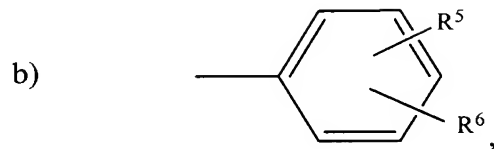
R^4 is H, $-COR^{14}$, $-CO_2R^{14}$, $-CONH_2$, $-CONHR^{14}$, $-CHR^{16}-OR^{14}$, $-CHR^{16}-O-COR^{14}$, $-COC(R^{16})_2-OH$, $-COR^{15}$, SO_2R^{15} or $-SO_2R^{14}$, R^{14} is C_1 - C_6 -alkyl or CF_3 , R^{15} is phenyl or tolyl, and R^{16} is H or C_1 - C_6 -alkyl;

R^5 and R^6 , which may be identical or different, are H, halogen, C_1 - C_6 -alkoxy, C_1 - C_6 -alkyl or halo- C_1 - C_6 -alkyl;

R^7 is H;

R^{10} has one of the meanings below:

a) A — B,



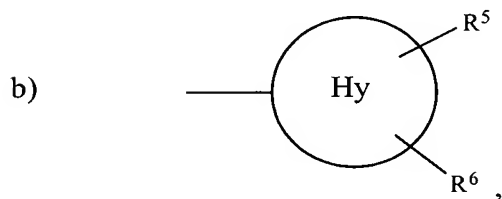
f) C_1 - C_6 -alkyl which is substituted by 2 phenyl groups, or

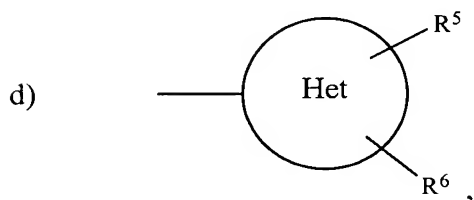
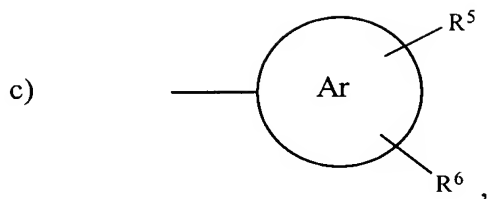
g) trifluoromethyl;

A is straight-chain or branched C_1 - C_6 -alkylene or C_2 - C_6 -alkenylene;

B is selected from the group consisting of

a) H,





e) OC₁-C₆-alkyl, and

f) OH;

Hy is a 3- to 10-membered non-aromatic mono-, bi- or tricyclic carbocycle which may or may not be fused with a benzene ring;

Ar is a 5- or 6-membered aromatic heterocycle which has 1, 2 or 3 heteroatoms independently of one another selected from the group consisting of O, S and N and which may or may not be fused with a benzene ring;

Het is a 5- or 6-membered non-aromatic heterocycle which has 1, 2 or 3 heteroatoms independently of one another selected from the group consisting of O, S and N which may or may not be fused with a benzene ring and which may or may not be bridged bicyclically or tricyclically.

Thus, when R¹⁰ is a heterocyclic group, R³ necessarily contains a heterocyclic group.

Note that the compounds embraced by Claim 25 all have a common nucleus, which can be characterized as a 2-thio-substituted imidazole, substituted at the 4-position with a pyridinyl group which itself is otherwise substituted at only one position on the pyridine ring by R³.

In the Office Action dated September 12, 2008, the Examiner has, *inter alia*, objected to Claim 25 as containing nonelected subject matter, but stated that limiting the claim to the

elected subject matter would be allowable. In the Office Action, the Examiner characterizes the elected subject matter as, in effect, compounds within the terms of above formula I wherein R¹⁰ is limited to a tetrahydropyran group or nonheterocyclic groups otherwise within the terms of R¹⁰.

In response to Applicants' request in the amendment filed July 3, 2008 that under proper PTO practice, the Examiner expand her search and examination upon determining that the elected species is allowable, as she is required to do, the Examiner refuses.

REQUEST FOR RELIEF

Applicants respectfully request that the Examiner be ordered to expand her search and examination of the subject matter of Claim 25 in accordance with customary PTO practice. As stated in MPEP § 803.02, should no prior art be found that anticipates or renders obvious the elected species, the search of the Markush-type claim **will** be extended (emphasis added.)

Respectfully submitted,

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